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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,813	09/09/2005	Katsushige Kohri	0122.1629	1160

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EXAMINER

TORRES, MARCOS L

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/525,813

Applicant(s)

KOHRI ET AL.

Examiner

Marcos L. Torres

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2-28-05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) filed on 2-28-2005 is being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kido 2001/0016508A1.

As to claim 1, Kido discloses a folding-type electronic device that has a main casing (see fig. 3, item 105) and a sub-casing (see fig.3, item 104) open able and closable coupled with each other via a hinge, wherein the hinge is mounted with a functional component (see fig. 3, items 107, 108, 113, 114), and the electronic device enables a user to access the functional component and operate the functional component regardless of whether the electronic device is in the opened state or in the closed state (see fig. 3 and 8, items 102, 110).

As to claim 2, Kido discloses a folding-type electronic device wherein the functional component is mounted on the hinge coaxially with the hinge (see fig. 3 and 8, items 102, 110).

As to claim 12, Kido discloses a folding-type electronic device wherein the functional component is an electric element such as a rotational switch (see fig. 3, item 110; par. 0035).

As to claim 13, Kido discloses a folding-type electronic device wherein the functional component is a communication element (see fig. 3, item 102).

As to claim 14, Kido discloses a folding-type electronic device wherein the functional component is an optical element (see fig. 3, item 102).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kido in view of Katoh US007085375B2.

As to claim 3, Kido discloses a folding-type electronic device wherein the hinge has a pair of bearing mechanisms that comprise: a pair of bearings coaxially provided, with a distance between the two bearing mechanisms, on one of a main casing (see fig. 6, item 403); and a pair of shaft members coaxially provided, with a distance between the two shaft members, on the other of the main casing and the sub-casing, and engaged with the bearings respectively (see fig. 6, item 402), and the functional component is mounted in the space between the pair of bearing mechanisms (see fig. 6, item 109). Kido do not specifically disclose a bearing in the sub-casing. In an analogous art, Katoh discloses a bearing in the sub-casing (see fig. 1 and 2, item 2b). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to use the Katoh hinges to have strong connection between the cases while preventing abrading.

As to claim 4, Kido discloses a folding-type electronic device wherein the pair of bearings are formed on a chassis of one of the main casing (see fig. 6, item 403), and the pair of shaft members comprises a pair of hinge pins (see fig. 6, item 402), and the small-diameter portions are engaged with a pair of second bearing (see fig. 6, item 404). Katoh discloses a folding-type electronic device wherein the pair of bearings are formed on a chassis of one of the main casing and the sub-casing (see fig. 1, items 2b), and the pair of shaft members comprises a pair of hinge pins, which are fixed to cylinders formed on a chassis of the other of the main casing and the sub-casing (see fig. 3, item 5, 8), each hinge pin has a large-diameter portion and a small-diameter portion integrally structured in an axial direction, and the large-diameter portions are fixed to the cylinders respectively, and the small-diameter portions are engaged with a pair of second bearings respectively (see fig. 3, item 6a, 6).

As to claim 5, Kido discloses a folding-type electronic device wherein the functional component is disposed between the pair of bearing mechanisms and is rotatably supported by a pair of second bearings that are provided, with a distance there between, on one of the main casing (see fig. 6, item 109, 404).

As to claim 6, Kido discloses a folding-type electronic device wherein the functional component is disposed between the pair of bearing mechanisms and is movably supported in an axial direction by a pair of second bearings that are provided, with a distance there between, on one of the main casing (see fig. 6, item 109, 404).

As to claim 7, Kido discloses a folding-type electronic device according wherein the functional component is a structure unit that has a large-diameter portion at the

center of the structure unit in an axial direction, and has small-diameter portions at both ends of the structure unit, and the small-diameter portions at both ends are engaged with the pair of second bearings respectively (see fig. 6, item 109, 404).

As to claim 8, Kido discloses a folding-type electronic device wherein the functional component is a rotation switch that is rotatable supported within at least a constant angular range by the pair of second bearing members (see fig. 3, item 110, par. 0035).

As to claim 9, Kido discloses a folding-type electronic device wherein the functional component consists of: a rotation unit that is rotatably supported within at least a constant angular range by the pair of second bearings; and a rotation detection sensor that is fixed to one of the main casing, adjacent to the rotation unit (see fig. 3, item 110, par. 0035-0037, 0060-0061).

9. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kido in view of Katoh as applied to claim 4 above, and further in view of Sawada US 20020086698A1.

As to claim 11, Kido discloses a folding-type electronic device wherein the functional component is supported by the pair of second bearings such that the functional component is rotatable within at least a constant angular range (see fig. 3, item 110, par. 0035). Kido does not specifically disclose a functional element that is movable in an axial direction within a predetermined range. In an analogous art, Sawada discloses a functional element that is rotatable within at least a constant angular range (see fig. 4, item 20) and is movable in an axial direction within a

predetermined range (see fig. 4, item 21). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add movable functional element to the modified Kido device to facilitate user input.

As to claim 10, Kido folding-type electronic device according wherein the functional component is supported by the pair of second bearings such that the functional component is not rotatable but is movable in an axial direction within a predetermined range (see fig. 4, item 21).

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kido in view of Claxton US006434404B1.

As to claim 15, Kido discloses everything as explained above (see claim 1) except for the folding-type electronic device wherein the functional component is an acoustic element. In an analogous art, Claxton discloses the folding-type electronic device wherein the functional component is an acoustic element (see fig. 2, item 108). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add an acoustic element to permit the user to use the acoustic device regardless if the case is open or close.

Conclusion

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Art Unit: 2617

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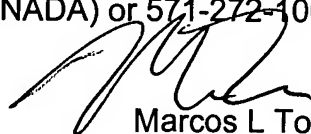
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcos L. Torres whose telephone number is 571-272-7926. The examiner can normally be reached on 8:00am-6:00 PM alt. Wednesday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-252-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Marcos L Torres

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